

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in this application.

Listing of Claims:

Claim 1 (Currently Amended): [[Bone]] A bone screw [[(1) with]] having a longitudinal axis [[(2)]] comprising:

[[and]] a threaded shaft [[(15),]] which comprises includes a threaded section [[(3)]] with an external diameter D_A , a [[front]] frontal thread end [[(4)]] of the threaded section, and a thread profiler (11) profile,

wherein the thread profile (11) having has a front threaded flank [[(7),]] directed towards the [[front]] frontal thread end (4) of the threaded section, a rear threaded flank [[(18)]] and a flank angle β , characterized in that

[[A]] wherein the threaded section [[(3)]] has a multiple thread, and [[B]] each thread of the threaded section [[(3)]] at the [[front]] frontal thread end [[(4)]] of the threaded section has a knife-like element [[(5)]] with a cutting edge [[(6)]].

Claim 2 (Currently Amended): [[The]] A bone screw [[(1) of]] according to claim 1, characterized in that wherein the threaded section [[(3)]] has a double thread.

Claim 3 (Currently Amended): [[The]] A bone screw (1) of claims 1 or 2, characterized in at according to claim 1, wherein the cutting edge [[(6)]] encloses a sector angle α of at least 45° and preferably of at least 55° of a threaded thread.

Claim 4 (Currently Amended): [[The]] A bone screw (1) of one of the claims 1 to 3, characterized in that according to claim 1, wherein the cutting edge [[(6)]] is curved convexly.

Claim 5 (Currently Amended): [[The]] A bone screw (1) of one of the claims 1 to 4, characterized in that according to claim 3, wherein the sector angle α is between 45° and 200° of a thread.

Claim 6 (Currently Amended): [[The]] A bone screw (1) of claim 5, characterized in

~~that according to claim 5, wherein~~ the sector angle α is between 55° and 200° of a thread.

Claim 7 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 6,~~ characterized in that according to claim 1, wherein the knife-like element [[(5)]] encloses an angle β of between 10° and 60° with the rear threaded flank [[(18)]].

Claim 8 (Currently Amended): [[The]] A bone screw [[(1) of]] according to claim 7, characterized in that wherein the knife-like element [[(5)]] encloses an angle β of between 15° and 35° with the rear threaded flank [[(18)]].

Claim 9 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 8,~~ characterized in that according to claim 1, wherein the cutting edge [[(6)]] between the core [[(10)]] and [[the]] a tip [[(19)]] of the thread is constructed helically.

Claim 10 (Currently Amended): [[The]] A bone screw ~~of one of the claims 1 to 9,~~ characterized in that according to claim 1, wherein the knife-like element [[(5)]] has a cutting angle γ' of between 20° and 60° at least at [[the]] a tip [[(19)]] of the threaded section.

Claim 11 (Currently Amended): [[The]] A bone screw [[(1) of]] according to claim 10, characterized in that wherein the knife-like element [[(5)]] has a cutting angle γ' of between 35° and 50° at least at the tip [[(19)]] of the threaded section.

Claim 12 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 11,~~ characterized in that according to claim 1, wherein the knife-like element [[(5)]] has a constant cutting angle γ .

Claim 13 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 12,~~ characterized in at according to claim 1, wherein the front end [[(4)]] of the threaded section coincides with the [[front]] frontal thread end [[(8)]] of the bone screw [[(1)]].

Claim 14 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 13,~~ characterized in that it has according to claim 13, wherein the front end is [[a]] convex front end (8).

Claim 15 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 14,~~ characterized in that according to claim 13, wherein the front end [[(8)]] of the bone screw [[(1)]] comprises a facet [[(24)]], which encloses an angle φ of between 30° and 90°

with the longitudinal axis [[(2)]].

Claim 16 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 15, characterized in that according to claim 13, wherein~~ the knife-like element [[(5)]], viewed from the front end [[(8)]] of the bone screw [[(1)]], is constructed sickle-shaped with a cutting edge [[(6)]] disposed on the outer edge.

Claim 17 (Currently Amended): [[The]] A bone screw ~~(1) of one of the claims 1 to 16, characterized in that according to claim 1, wherein~~ the threaded section [[(3)]] comprises at least two thread ridges [[(25)]], which have a flank angle δ at the core [[(10)]] of the threaded section and a flank angle δ' at the periphery of the thread.

Claim 18 (Currently Amended): [[The]] A bone screw [[(1) of]] according to claim 17, ~~characterized in that wherein~~ the flank angle δ at the core [[(10)]] of the threaded section is larger than the flank angle δ' at the periphery of the thread.

Claim 19 (Canceled)